FIG. 1

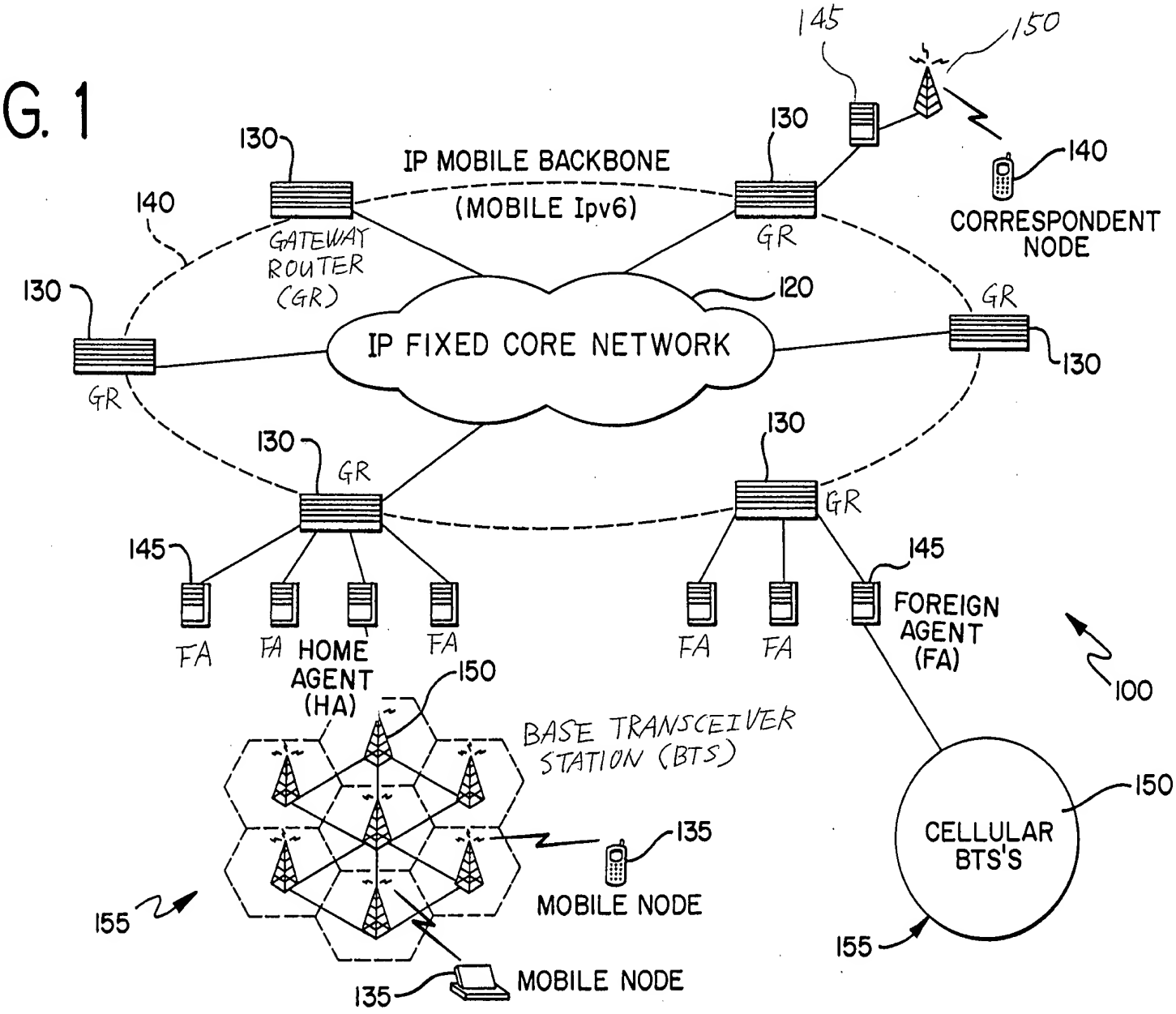

145
150
130
IP MOBILE BACKBONE
(MOBILE Ipv6)
130
140
CORRESPONDENT NODE
140
GATEWAY ROUTER (GR)
GR
130
120
GR
IP FIXED CORE NETWORK
130
GR
130
GR
130
GR
145
145
FA
FA
HOME AGENT (HA)
FA
FA
FA
FOREIGN AGENT (FA)
100
150
BASE TRANSCEIVER STATION (BTS)
135
MOBILE NODE
155
CELLULAR BTS'S
150
155
135
MOBILE NODE

FIG. 2

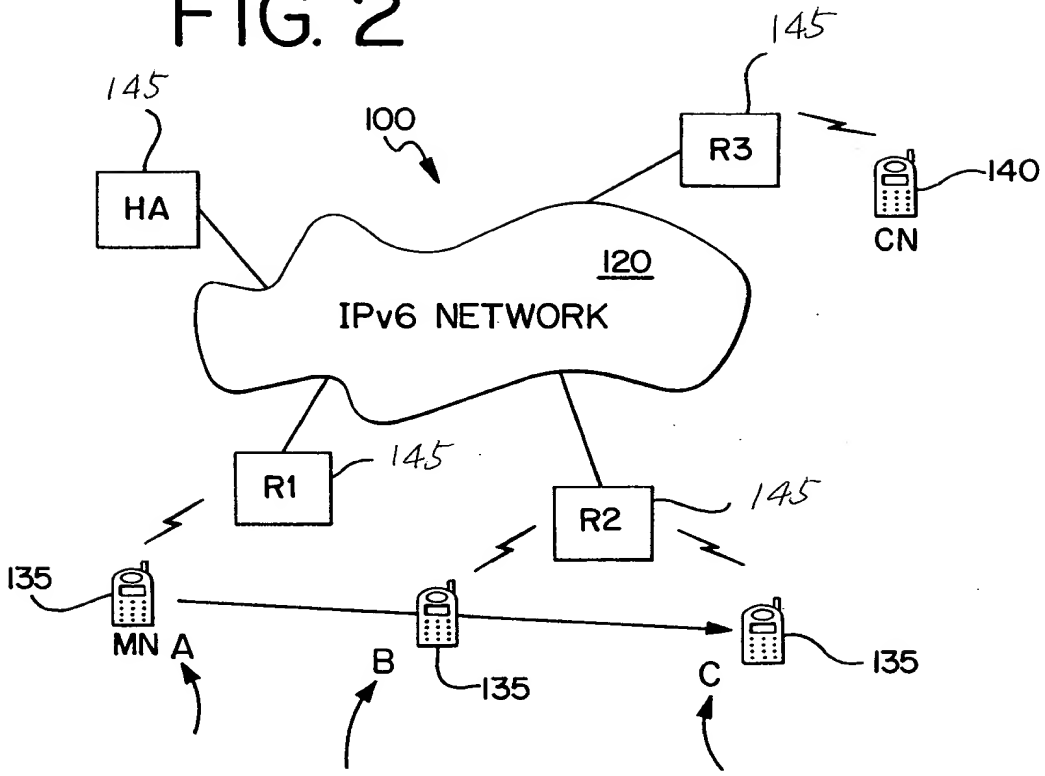

145
100
145
R3
140
HA
CN
120
IPv6 NETWORK
145
R1
145
R2
135
MN A
B
135
C
135

FIG. 3

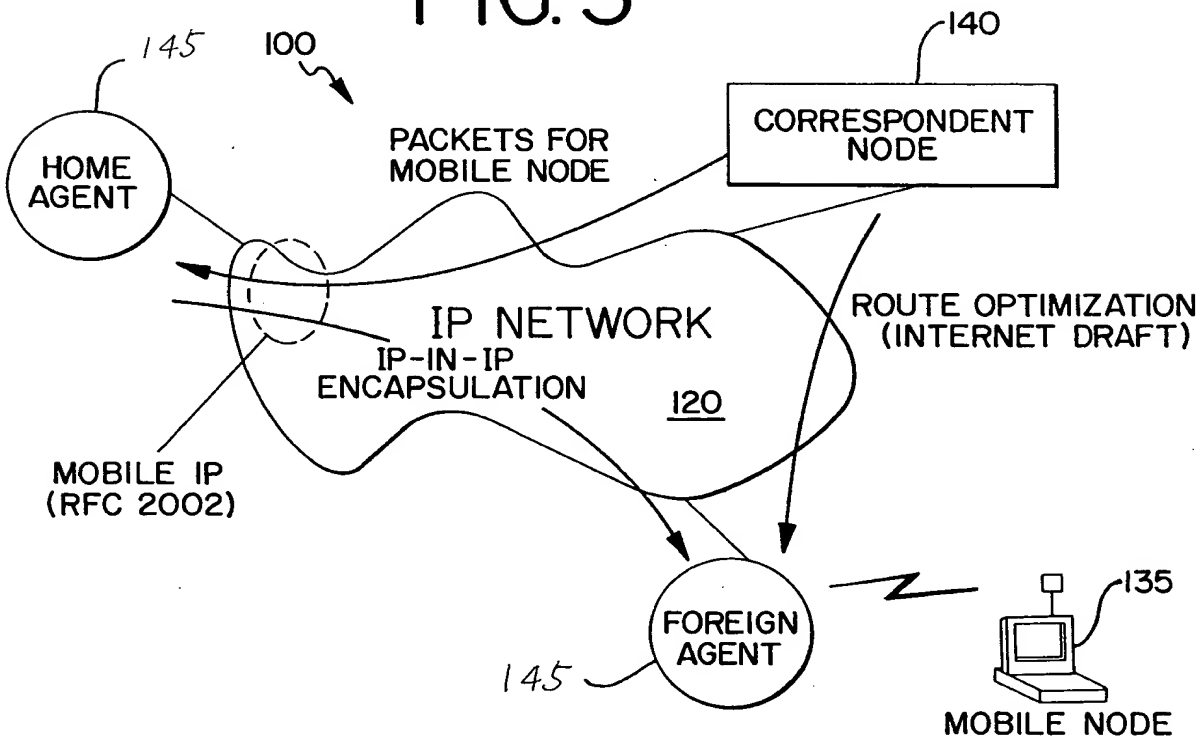

145
100
140
HOME AGENT
PACKETS FOR MOBILE NODE
CORRESPONDENT NODE
IP NETWORK
IP-IN-IP ENCAPSULATION
120
ROUTE OPTIMIZATION (INTERNET DRAFT)
MOBILE IP (RFC 2002)
FOREIGN AGENT
145
135
MOBILE NODE

FIG. 4

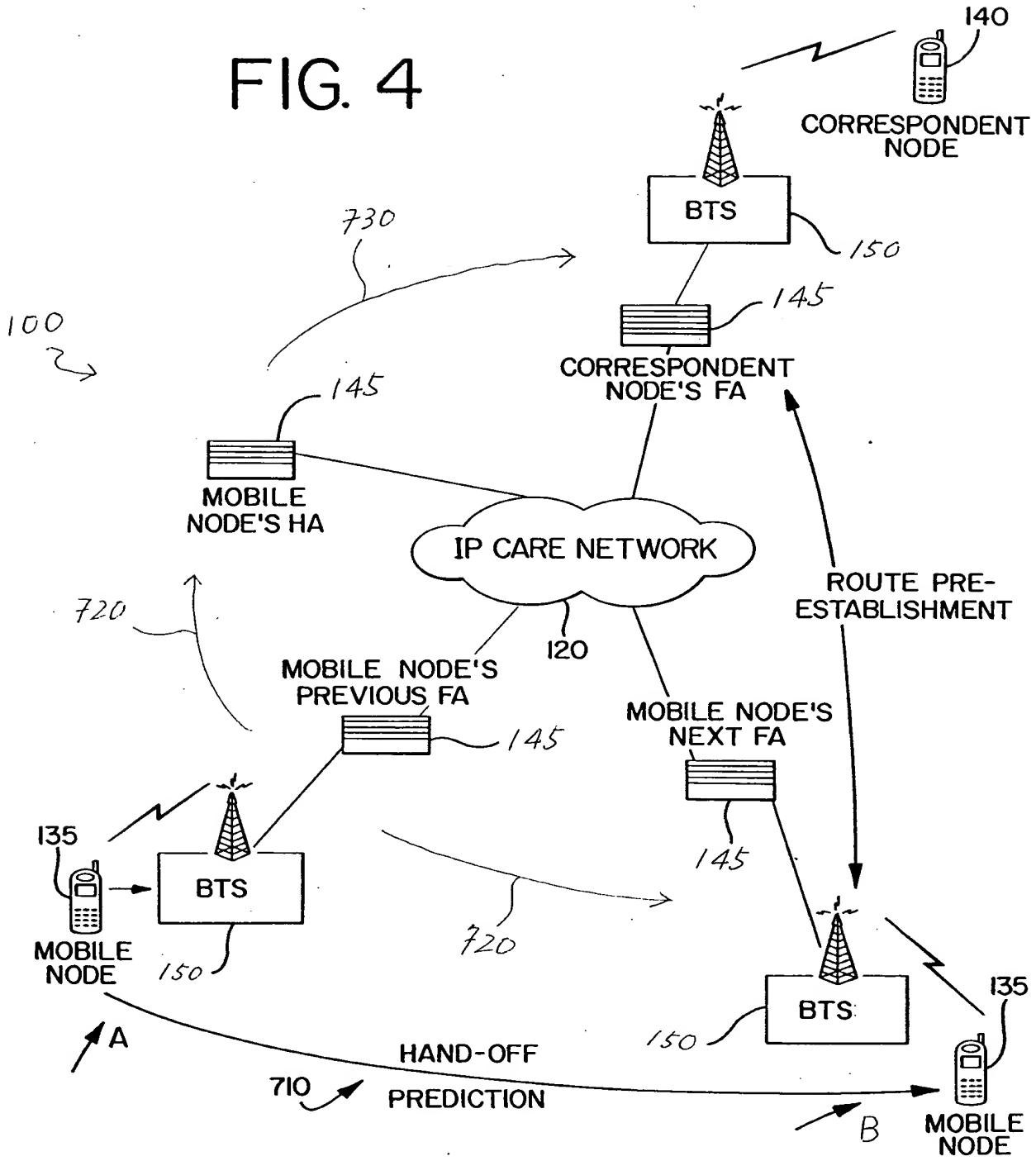

140
CORRESPONDENT NODE
BTS
150
730
145
100
CORRESPONDENT NODE'S FA
145
MOBILE NODE'S HA
IP CARE NETWORK
ROUTE PRE-ESTABLISHMENT
720
120
MOBILE NODE'S PREVIOUS FA
MOBILE NODE'S NEXT FA
145
145
135
BTS
720
MOBILE NODE
150
BTS
150
135
A
HAND-OFF PREDICTION
710
B
MOBILE NODE

FIG. 5

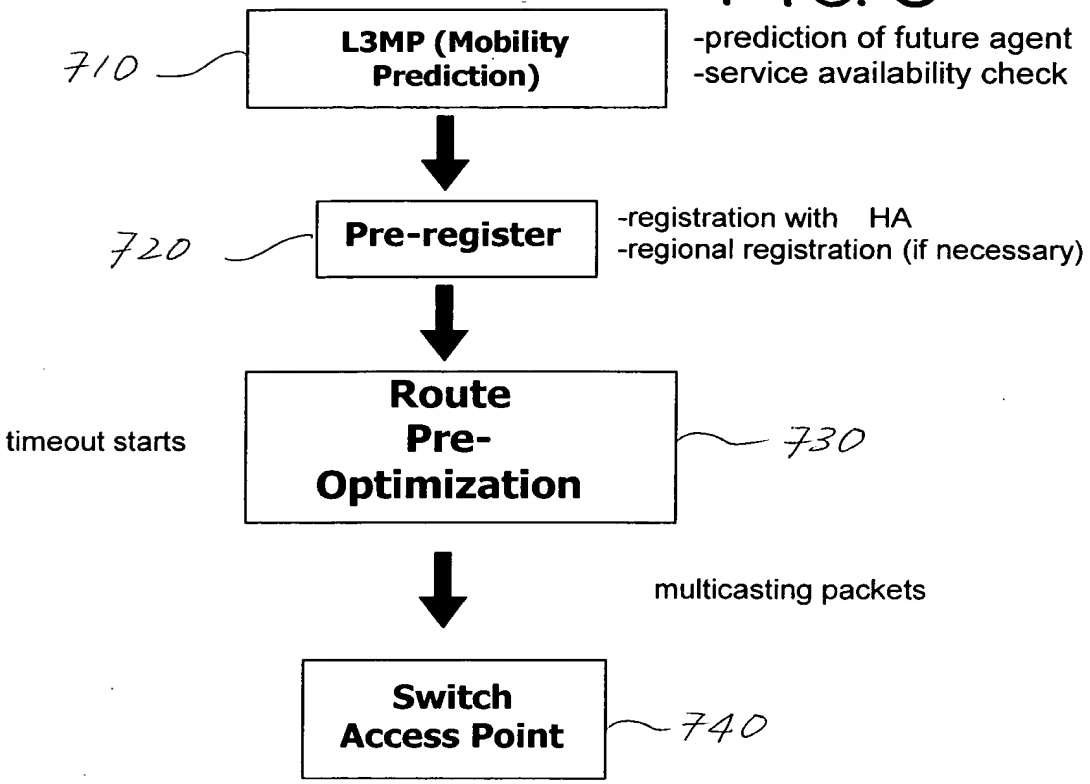
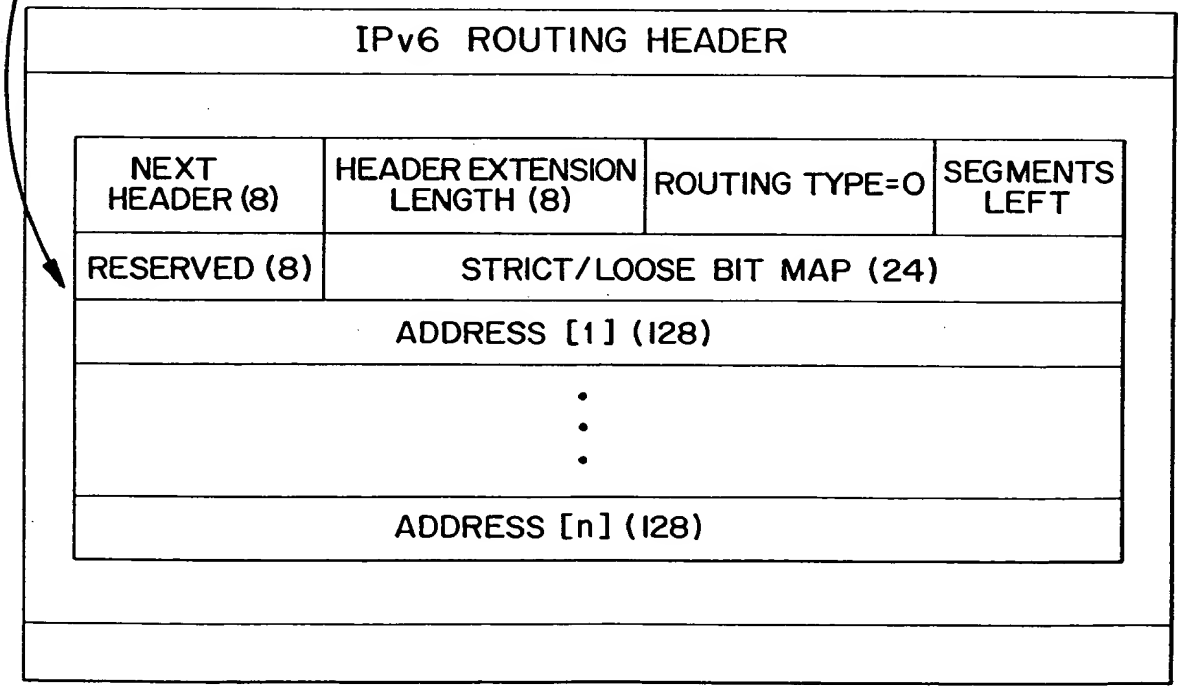

710
L3MP (Mobility Prediction)
-prediction of future agent
-service availability check
720
Pre-register
-registration with HA
-regional registration (if necessary)
timeout starts
Route Pre-Optimization
730
multicasting packets
Switch Access Point
740

FIG. 6


500
IPv6 ROUTING HEADER
NEXT HEADER (8)
HEADER EXTENSION LENGTH (8)
ROUTING TYPE=0
SEGMENTS LEFT
RESERVED (8)
STRICT/LOOSE BIT MAP (24)
ADDRESS [1] (128)
ADDRESS [n] (128)